



The Pileup

Newsletter of the CDXA

Contesting: Assisted vs Unassisted

By Art Tolda, W1AJT

There was recently posted an interesting observation: anyone who has been licensed in the last 20 years has never known a world without the DX Cluster.

I was licensed 60 years ago so I do remember how it was although I was just chasing DX. Until being re-licensed in 2003, I wasn't really aware of contesting. With no cluster, one had to call CQ a lot in order to advertise your interest in having a QSO.

You would hear the odd pileup, and interestingly enough, it actually helped generate even more activity. In those days, we did not have the problem of people in the pileup sending their call over and over and blocking out the running station — so in some ways life was simpler.

Fast forward to today with the DX Cluster being widely available and how things have changed. When a desirable station appears on the air and calls CQ, he can very quickly have a huge pileup. In order to help get things back under control — by working stations quickly and stopping the pileup from getting even larger — stations will sometimes not ID as fre-

quently as they should. Some stations will just send "QRZ?", TU (thank you), or dit dit, and just work the next station.

With the wide availability of the DX cluster, some feel they don't have to ID as often. The thinking is: let's shave a few seconds off each QSO, and I can work even more stations by not sending my call. The expectation is that Search and Pounce (S&P) stations will see the call posted on the cluster and click on the spot. Since the running station's call will be pre-populated in the S&P station's logging software, there is no need for the running station to ID. Some S&P stations will complete the contest QSO without actually "hearing" the running station's call sign being sent over the air. As you can well imagine, this can create all manner of problems.

First off, what happens if the call sign posted to the cluster is incorrect — also known as a "busted" *spot*? *Sometimes operators will purposely post just such a "bad spot". The call sign is close but slightly off:* replace an "o" with a zero (0); an "l" (lower case letter L) with a one (1); add a letter; or miss a letter. There seems to be an endless number of errors that can be made by accident or, unfortunately, with intent to cause problems. If

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CDXA PacketCluster & Other Communication Systems

K4MD (AR V.4 Cluster via Telnet)	k4md.no-ip.com:23
K4MD (AR V.6 Cluster via Telnet)	k4md.no-ip.com:7373
W4DXA (AR V.6 Cluster via Telnet)	w4dxa.no-ip.com:23
W3GQ (CC Cluster via Telnet)	w3gq.no-ip.com:7373
CDXA Repeater 147.18 MHz (+600)	W4DXA, Near Fort Mill, SC
World Wide Web Homepage	www.cdxa.org
Wednesday Luncheon (11:30 AM)	Skyland Family Restaurant, 4544 South Boulevard, Charlotte, NC

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this “bad call” ends up in your log, you are the one who will get a penalty. What can also happen is the running station can change frequency and a different (running) station ends up on, or close to, the same frequency. By depending on the cluster, you could end up working the running station, but again end up with the wrong call in your log. It is best to verify the running station’s call sign before logging him.

Good operators send their call often enough that it should not be a problem confirming the call before it goes into your log. On the running side, having a busted spot posted to your frequency can also be problematic. Suddenly, many stations — some of which you have already worked — are calling you again. It is normal in a contest for some people to copy your call incorrectly and work you again. In almost all contests there are no penalties for working dupes if the log is submitted in electronic format. When you get a lot of duplicates in a row, chances are that a bad spot has been posted to the cluster. While there is no penalty for working dupes, there are also no additional points either and your score suffers from spending time working dupes. When this happens, there are two solutions: change frequencies or work through the dupes, IDing frequently, and hoping that the S&P stations realize that they have already worked you.

Using the cluster places you in the “assisted” category, if the contest supports it. You are being assisted in finding stations to work by others telling you the call sign and frequency of the running station. For some contests, the use of a code reader can also put you into the assisted category. Contests, such as the ARRL DX, Sweepstakes, and RTTY Roundup refer to this class as “Unlimited”. Yes there is still only one operator and one transmitted signal at a time allowed,

but you are being assisted in finding stations to work through an artificial means.

Interestingly enough, the Radio Amateurs of Canada (RAC, Canada’s equivalent of the ARRL) sponsored Canada Day and Winter contests do not have an assisted category. Using the cluster to find stations means entering a contest in either the multi-single or multi-multi category.

With multi-single (multiple operators, one transmitter), once you have logged a QSO on a band, you must stay on the band for 10 minutes. If you are using two radios (SO2R) and doing rapid band changes, you need to enter in the multi-multi class. Yes, that means you are in the same class as other stations that could have many operators and multiple signals on the air at the same time.

Using the cluster can have a huge impact on your score. It can help you to quickly locate stations (and multipliers), alert you to band openings and help with call sign decoding. This seemingly gives you a very formidable advantage over stations not using the cluster. With all these advantages, why would folks not want to use the cluster?

First, is our premise of an advantage true? The answer is sometimes, for some people. If you are in a low activity contest, perhaps a state QSO party, the cluster can help you find those stations participating. However doing some quick calculations for the popular CQWW contests the advantage ranged from 15% to 29% to 47% - in favor of NOT being assisted

Besides the aforementioned, there are several reasons why operators do not use assistance. Some operators like to spin the dial in order to find other stations. If you can find a running station before they are spotted, it can be far easier to get through. Once the running station is spotted, and they have a huge pileup, getting through can be more difficult. Others may not have the capability to use a cluster such as stations located in remote locations with no or poor Internet service, or portable, mobile, and DXpedition stations.

For myself, I sometimes use a cluster and sometimes contest with no cluster. My decision is influenced by a number of factors. If your station has a panadapter/spectrum display, this can provide help without the use of a cluster. With the proliferation of inexpensive SDR radios, today anyone can have a spectrum display for less than \$100.

When operating a contest, please keep in mind that not everyone is using the cluster, and sending your call after every QSO will make for more fun for everyone. See y’all in the next one.

--Art, W1AJT

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The purpose of the Association is to secure for the members the pleasures and benefits of associating with persons having a common interest in Amateur Radio.

Members of the CDXA shall adhere to “The Amateur’s Code” as published from time to time in *The ARRL Handbook for Radio Amateurs*, and shall consist of those valid licensed amateur operators having an interest in promoting amateur radio. Long distance communications (DX) is of special interest to members of the Association, but said interest is not a requirement of membership.

Yearly dues are \$25.00. A second licensed Amateur family member living in the same household can join for \$5.00 for a total family price of \$30.00 per year. The total price for 3 or more licensed family members living in the same household is only \$35.00 per year. All family members enjoy full member status. Dues are payable annually in December by check to the Secretary/Treasurer:

Ray Weeks, N4APR
3017 Cutchin Drive
Charlotte, NC 28210

Address, telephone, and email address changes should be directed to the Secretary/Treasurer at the above address or via email at: rweeks1@carolina.rr.com.

A look back to 2007 and BS7H—Scarborough Reef

The world waited as a 75 foot long working vessel named “Deep Blue” made its three day voyage from mainland China to a shoal consisting of only a handful of rocks sticking slightly above the surface of the South China Sea. The shoal—called Scarborough Reef—is claimed by China even though it is only about 100 miles west of Luzon of the Philippine Islands. Starting operations in late April, this DXpedition made a little over 45,000 QSOs to provide a new DXCC entity for perhaps half that number. The rocks are so treacherous to navigate after dark that nighttime operators were put on wooden scaffolds built on the rocks at sundown and were not relieved until about 8:00 in the morning on the following day. One of the operators on that DXpedition was Joe Blackwell (AA4NN), a member of Carolina DX Association. Want to know more? Ask Joe the next time you see him. If you’d like to read about the effort, go here:

[Scarborough Reef on INDEXA Website](#) Below are some scenes from the DXpedition.



Climbing the DXCC Challenge Pinnacle

Keith Lewis, K4XP, of Spartanburg, SC was recently cited as being only South Carolina's second DXer to achieve the DXCC Challenge 3000 level. The Challenge Award was established by ARRL to provide a continuing challenge to DXers by recognizing the number of DXCC band "slots" of current DXCC entities one has earned on the 160m through 6m bands, exclusive of the 60m band, without regard to mode. With 340 current recognized entities and ten bands, that amounts to 3,400 total slots available. Congratulations to Keith!

CDXA Members also known to be in this "elite" group earning more than 3000 Challenge slots are **Bill McDowell**, K4CIA, and **Gary Dixon**, K4MQG.

Teleconferencing During the Covid-19 Pandemic

Since the last issue of the Pileup went to press, two Zoom sessions have been held for the benefit of our membership. Zoom is a free teleconferencing app that is easily downloaded and will run on iPhones, Android phones, Windows Computers, Apple Computers, and tablets that run Android or Apple operating systems.

The first session was a presentation by Jay Slough, K4ZLE, informing us of the preparations for the planned DXpedition to Sable Island this fall. Jay gave us some background on the history of the Island being named "The Graveyard of the Atlantic" because of all the shipwrecks that have occurred there over the years. The island is populated by wild horses who are allowed to live in the natural state, even including the inevitable death that occurs periodically. The only way to get on-to Sable is via a specially prepared plane with beefed-up landing gear that enables landing on a somewhat sheltered beach when conditions are proper! We had about 25 members show up for this first ever "membership meeting" conducted by teleconference. We've learned that the Sable team is now delaying their DXpedition until fall 2021 because of issues related to Covid-19. Even now, American citizens are not allowed into Canada except under stringent quarantine rules.

In mid-July, a second meeting featured a presentation by Ken Karr, NG2H of the VP8PJ team that brought us South Orkney Islands in February/March 2020. Due to the cancellation of many hamfests throughout this spring, there probably have not been many public presentations of this DXpedition's activities. Ken took us from the team's meeting up with the MV Braveheart in Punta Arenas, Argentina and then sailing down to the South Orkney's. There were some marvelous photos of the landscapes of this barren, mountainous island as

well as views of the creatures that inhabit the island. About 33 CDXA members logged in with about 27 being present for most of the 40 minute presentation. Even Mr. Murphy paid us a visit in the early going when a lightning storm moving through Ken's neighborhood affected his Internet connection requiring him to rejoin the session while participants waited for his continuing narration of events. It was somewhat coincidental that the QSL card for this DXpedition bearing the CDXA logo arrived in the mail a few days before Ken's presentation.

In case you missed these talks. . . .

Zoom software has a neat feature which allows recording a Zoom session. Both of the above sessions were recorded and now can be accessed via the CDXA website. Login instructions and passwords are provided on the CDXA website under the "Latest CDXA News".

And, what about "previews of coming attractions"?

In August you'll hear Gary Dixon relate several interesting events that Gary experienced in his long involvement with amateur radio. Gary first gave this presentation to the attendees of the Dayton DX Dinner at the request of the sponsor of the dinner---the Southwest Ohio DX Association (SWODXA). The talk was well received. You'll all be surprised at how amateur radio played a part in some significant events seriously affecting people's lives. Announcement of the date of Gary's presentation will be forthcoming in early August.

The officers of CDXA hope that these presentations are of interest to the membership. Please let the officers know if you have a topic that you'd like to learn more about. We hope we'll see many of you at the August session. Up to 100 attendees can be accommodated. Watch for the date.



You were absolutely right about that lightning...

Contest Goals

By Art Tolda, W1AJT

It's not unreasonable for me to try for a "Clean Sweep" during the ARRL November Sweepstakes, but racking up 6,000 QSOs in the CQWW and a Top 10 finish would stretch credulity. My typical goals are not grandiose, but I try to improve my performance each year. Goals involve setting expectations that help boost motivation and sustain endurance. Often I review my scores from a previous contest and set of goal of 50 or a 100 more QSOs for the next one.

Sometimes I reset the goal during the contest for a stronger finish. For the NA QSO Party's or the Sprints I like being on a team because it creates a contest within a contest. Increasing my motivation to make more contacts. Another great motivator is posting your scores near "real-time" on one of the Contest Scoreboard sites. This is easy to set up with almost all contest logging programs such as N1MM, N3FJP, WinTest, etc.

Choose the right mode for your goals. With my limited station, I tend to do better with digital modes, CW, and RTTY rather than with SSB. For the IARU however, I like to use both CW and SSB, starting off with CW, then going to SSB later during the contest, when the herd thins a little. For the ARRL Ten Meter Contest, I may do only CW. For the California and Florida QSO Party's, I need both SSB and CW to get those rare counties. For international contests, I do better as a high-power entrant. I almost always use a cluster and the assisted mode as a limited station to make S&P operation more efficient. However, I am not going to use a cluster during the NAQP, because that would put me into the multi category.

State QSO parties offer opportunities that the high-stakes, cut-throat, got-to-beat-the-world kind of contests cannot. The slower pace allows newcomers to ease into the world of contesting, to polish operating skills and try out contesting strategies without irritating operators who are only interested in a high score. State QSO parties are great for practicing different modes without the pressure of an impatient pileup and for acquiring familiarity with new logging software or remote operations.

So set achievable goals with modes you are comfortable with and give it a try. Every person in the contest will appreciate both the QSO you give and the effort you made.

Art Tolda – W1AJT / VE3UTT

Gee, I didn't know THAT!

In the event you overlooked Contest Manager Art Tolda's email notice of June 20, here is a reminder that ARRL has made available contest certificates on its website at the following address:

<https://contests.arrl.org/certificates.php>

Certificates are available in JPEG and PDF format. Entering one's callsign in a text box will retrieve all certificates on file on which your callsign appears—whether it was as an individual or as member of a team. I was surprised to find over 65 certificates awaited me—some as an individual and some as a member of the AA4ZZ VHF Contest team. Even more surprising was learning that some of my individual efforts resulted in being in the top ten in the North Carolina Section or the Roanoke Division! —The Editor

Pun Pfun

Here are a few "groaners" to get you through the summer Covid-19 months. Look at it this way, if you don't like puns, you can direct your ire at the Editor instead of the darned virus!

I thought I saw an eye doctor on an Alaskan island, but it turned out to be an optical Aleutian.

She was only a whiskey maker, but he loved her still.

A dog gave birth to puppies near the road and was cited for littering.

Welcome New Members

Jack Shalayda (K4NWX) of Anderson SC joined us on June 15th! Welcome, Jack

DX Engineering Virtual Hamfest And DX Academy, July 25

By John Scott, K8YC

I didn't know what to expect when I read the notice about DX Engineering sponsoring a Webinar on July 25. The login indicated Zoom was going to be used, but just how were the organizers going to accommodate an unknown number of attendees?

Well, they did it quite well, thank you. Over 1200 checked in with a large unknown number of attendees

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Gee, I didn't know that!

The tidbit below was provided by Bill Fisher. Thanks, Bill, for filling us in on the world around us every day.

Your Phone Has a Tiny, Crucial Design Detail You've Probably Never Even Noticed

June 27, 2020 [Tech](#) By [Eric Limer](#) Photo by Chandler Bondurant



Welcome to ***Further Details***, a series dedicated to ubiquitous but overlooked elements hidden on *your favorite products*: ***This week: the strips of plastic hiding on your smartphone.***

For years and years, after the death of the flip phone and slide-out physical keyboard, most smartphones have looked pretty much the same: smooth slabs of metal or glass, with a camera on the back, and ever fewer buttons. But there's one crucial, subtle aspect of this simple, shared design that you may not have noticed.

Take a second and turn your phone over in your hands a few times. Can you find a few small lines of colored plastic around the edge? These are one of the most crucial bits of engineering on your pocket supercomputer, without which it could not function.

These bits of plastic are “antenna lines,” and you may be familiar with them from their particularly obvious placement on phones like the iPhone 6 and, if you are an old-head Android nerd, the HTC One.

While they are opaque plastic, they actually function as tiny windows, not for light but rather for the radio waves that come from your phone's internal Bluetooth, Wi-Fi, and LTE/5G antennas and connect you to the internet. These electromagnetic waves that let your phone function as an actual communication device are able to move relatively effortlessly through materials that do not conduct electricity (like plastic) but are blocked by materials that do (like metal). These subtle little bars are what the data into and out of your phone.

Not all phones need these lines, of course. Phones that are already made of plastic are very transparent to radio waves. Similarly, glass will allow radio waves through, though not as readily as plastic, and phones with glass backs frequently have a metal frame, which will still contain a few small antenna lines.

Antenna lines are not a magic bullet for phone design, and can be thwarted by your body, which blocks signals quite effectively! Perhaps the most well known example of this problem was with Apple's glass-backed iPhone 4, and the ensuing “antennagate,” where the placement of the antenna lines along the phone's metal frame were such that a user's hand could easily bridge the gap and interfere with the signal.

So the next time you have trouble getting your fancy all-metal phone to establish a solid internet connect, keep an eye out for this little lines and make sure you aren't covering them up. They might be tiny, and a little unsightly, but they're the reason your phone isn't just a calculator.

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watching the virtual hamfest via streaming video on YouTube. The format was a webinar, so the only people you saw were the speakers and moderators. Questions from the “audience” could be presented using a Q&A function via Zoom, and a chat function allowed audience commentary which would flash on the bottom of the screen, but was sometimes distracting. The event was planned as an all day affair. I had no intention of watching for the entire day, but I ended up doing just that!

To be sure, DX Engineering used two short segments to highlight new items in their catalog that they wanted you to know about, but even those were informative. Here are the topics that ran through the day:

Ward Silver, N0AX, CQ Contest Hall of Fame Member, made a presentation on “Why Radio Sport?” The emphasis was that it just makes us better operators by learning more about our station apparatus, propagation, and operating efficiently. Such skills help us even in Emergency Communications and Public Service functions but do not replace the procedural and organizational rules and skills needed in those activities.

Sean Kutzko, KX9X, gave a succinct rundown on many of the things one should know to work the amateur radio satellites. I wanted to get my Kenwood TH-G71 hand-talkie and an Arrow antenna to give it a try when Sean finished!

Anthony Luscre, K8ZT, Ohio Section Youth Coordinator provided a basketful of ideas on how to interest youth in Amateur radio. Anthony cited ways that have proved very effective in attracting youth to the hobby. His successes in Ohio with these methods have been outstanding. While the effort is more than one might imagine, the end results are effective and worth the effort.

Jerry Rosalius, WB9X, CQ DX Hall of Fame Member gave a very complete rundown on 160m and 80m antennas he has deployed on his Illinois farmstead. Beverages, Flags, K9AY's, and Shared Apex Loops among others were discussed. This is must listening for Low-Band aficionados.

Ray Novak, N9JA, Senior Sales Manager of Icom America, provided a rundown of the features we can expect to see in the IC-705 backpack radio still undergoing FCC certification. This radio will allow communicating on HF/50/144/430Mhz as an all mode portable QRP transceiver.

Glenn Johnson, W0GJ, CQ DX Hall of Fame member and veteran of a number of DXpeditions of the Year gave a report on the recently completed DXpedition to Pitcairn Island as VP6R. For once Glen went someplace

warm where he could sleep on a bed and view some remarkable landscape on this verdant island and relive the history of Fletcher Christian and the “Mutiny on the Bounty”.

The day finished with a presentation by Valerie Hotzfeld, NV9L, Ham Nation host and Hamvention Ham of the Year. Val is now married to Jerry Rosalius and even though a relatively new DXer, she's used their “Antenna Farm” to move up the DXCC list very smartly to 323 entities. Val was one of ARRL's 50 hams sent to Puerto Rico after the big hurricane a few years ago. Appropriately, Val gave us all the “do's and don'ts” to be a successful DXer.

WHAT CAN YOU DO IF YOU MISSED THESE PRESENTATIONS?????

You can start by thanking DX Engineering who has made all the slides available on their website under the “Tech Info & News” tab. Here's the complete link:

<https://www.dxengineering.com/techarticles/dxgeneralnews/presentations-for-dxe-virtual-hamfest-and-dx-academy-july-25-2020>

Oh, and next time one of these comes up, poke your nose in. You might just like it!!

The complete 8 hour virtual hamfest was recorded as a Zoom session and is on YouTube at:

<https://youtu.be/PC6iVZAH88>

One other thing worth noting. DX Engineering has an amateur radio blog site at “onallbands.com” that has a lot of interesting articles and interviews for you to peruse.

“What can I do during the Pandemic?”

By The Editor

This is a question for all CDXA members. I can tell you that what I've done is to spend time thinking about what I can report on about the “doings” of our club. In the last issue of the Pileup, a list of things to do was provided to give you and our other readers some ideas of how to bide their time. With DXpeditions being cancelled, no luncheon meetings being held, and little contesting being reported, there is a dearth of material to write about.

Now, I ask those of you who've done something interesting to do something for CDXA—become AU-THORS! Imagine your name as a byline of an article in the Pileup!!! Seriously, I am sure somebody in our group has something that will be of interest to our membership. Write it up and send it to me at:

k8yc@roadrunner.com.